



February 17, 2016

Ms. Annette Hebert, Division Chief  
California Air Resources Board, ECARS  
Emissions Compliance, Automotive Regulations and Science Division  
9480 Telstar Avenue, Ste. #4  
El Monte, CA 91731

Subject: FCA US LLC Voluntary Emission Recall Report (VERR) R69-C.

Dear Ms. Hebert:

Enclosed please find emission related Voluntary Emission Recall Report R69-C for certain 2014 model year vehicles. If you have any questions, please me at (248) 576-5468.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Dennis Rakicki', is positioned above the printed name.

**Dennis Rakicki**  
Vehicle Safety & Regulatory Compliance  
Emissions Compliance

**FCA US LLC**  
CIMS 482-00-81  
800 Chrysler Drive  
Auburn Hills, MI 48326-7922  
Telephone: +1 (248) 576- 5468  
Email: [dennis.rakicki@fcagroup.com](mailto:dennis.rakicki@fcagroup.com)

Enclosures



## FCA US LLC Voluntary Emission Recall Report (VERR) R69-C

### Description of vehicles to be recalled:

Test Group	Model(s)	Model Year	California Sales <sup>1</sup>
ECRXT03.05PV	RAM 1500	2014	999
Total:			999

### Description of the non-conformity, and modifications to be made:

Some 2014 MY Jeep® Grand Cherokee and Ram 1500 vehicles equipped with a 3.0L diesel engine are experiencing catalyst ("SCR") washcoat degradation, which could lead to exceedance of exhaust emissions standards.

FCA US will conduct a Voluntary Emission Recall (R69) on all affected vehicles to replace SCRs with ones that have an improved washcoat.

### Methods of determining names and addresses, and notifying vehicle owners:

FCA US provides the U.S. VIN list for a specific service action to Experian for the latest customer name and address information. Experian searches its internal database, which is updated with information from state databases (such as a state Department of Motor Vehicles). Experian sends this updated information to FCA US, which is then used to mail letters to the appropriate vehicle owners.

### Conditions of eligibility for repair under the remedial plan:

None.

### Procedures to be followed by vehicle owners to obtain the correction:

The vehicle should be returned to the dealer, which will make the necessary repairs. Owners may obtain the repair service any time after receipt of the notification.

### Class of persons other than dealers and authorized warranty agents who will remedy the defect:

None.

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<sup>1</sup> Numbers determined from manufacturing records.

## FCA US LLC Voluntary Emission Recall Report (VERR) R69-C

### **Owner Notification Letter:**

Three copies of the Owner Notification Letter are attached.

### **System to assure availability of adequate supply of repair parts:**

FCA US will have a minimum of 35 percent of the required parts in stock prior to launch. Dealers can then order parts as required.

### **Dealer service instructions:**

Three copies of the dealer service instructions are attached.

### **Impact of the proposed changes on emissions, fuel consumption, driveability and safety:**

None.

### **Progress reporting:**

The progress of the recall as defined by 13 CCR § 2119 will be communicated through the quarterly reports.



## **IMPORTANT EMISSIONS RECALL**

**R69**

This notice applies to your vehicle (VIN: xxxxxxxxxxxxxxxxx).

Dear: (Name)

FCA has determined that certain **2014 Jeep® Grand Cherokee and RAM 1500 Pickup** vehicles equipped with a 3.0L diesel engine may exceed exhaust emissions standards.

***The problem is...***

The selective catalytic reduction (SCR) catalyst on your vehicle is experiencing washcoat degradation, which may lead to the exceedance of exhaust emission standards.

***What your dealer will do...***

FCA will repair your vehicle free of charge. To do this, your dealer will replace the SCR catalyst. The work will take about 1½ hours to complete. However, additional time may be necessary depending on service schedules.

***What you must do...***

Simply contact your dealer right away to schedule a service appointment. Ask the dealer to hold the part for your vehicle.

***If you need help...***

If you have questions or concerns which your dealer is unable to resolve, please contact the FCA Group Recall Assistance Center at either [fcarecalls.com](http://fcarecalls.com) or 1-800-853-1403.

***California residents...***

The State of California requires the completion of emission recall repairs prior to vehicle registration renewal. Your dealer will provide you with a Vehicle Emission Recall Proof of Correction Form after the recall service is performed. Be sure to save this form since the California Department of Motor Vehicles may require that you supply it as proof that the recall has been performed.

If you have already experienced this specific condition and have paid to have it repaired, you may visit [www.fcarecallreimbursement.com](http://www.fcarecallreimbursement.com) to submit your reimbursement request online or you can mail your original receipts and proof of payment to the following address for reimbursement consideration: **FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement**. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you've had previous repairs and/or reimbursement you may still need to have the recall repair performed on your vehicle.

In order to ensure your full protection under the emission warranty provisions, it is recommended that you have your vehicle serviced as soon as possible. Failure to do so could legally be determined to be a lack of proper maintenance of your vehicle. Further, without this repair, your vehicle may fail a state or local emission inspection test.

We are sorry for any inconvenience but trust that you understand our interest in clean air. Thank you for your attention to this important matter.

Customer Services / Field Operations  
FCA US LLC





February 2016

Dealer Service Instructions for:

## **Emissions Recall R69 Selective Catalytic Reduction Catalyst**

Effective immediately all repairs on involved vehicles are to be performed according to this recall. Service Bulletin 18-064-15 is no longer applicable for vehicles involved in this recall. Those vehicles that have already had this repair performed, as determined by our warranty records, have been excluded from this recall.

### **Models**

2014 (WK) Jeep Grand Cherokee  
2014 (DS) RAM Truck (1500 Series)

*NOTE: This recall applies only to the above vehicles equipped with a 3.0L diesel engine (sales code EXF)*

**IMPORTANT:** Some of the involved vehicles may be in Dealer vehicle inventory. Dealers should complete this recall service on these vehicles before retail delivery. Involved vehicles can be determined by using the VIP inquiry process.

### **Subject**

The Selective Catalytic Reduction (SCR) catalyst on about 11,400 of the above vehicles is experiencing washcoat degradation, which may lead to the exceedance of exhaust emission standards.

**Repair**

The SCR catalyst must be replaced.

**Parts Information**

**IMPORTANT:** Due to the small number of involved vehicles, no parts will be distributed to involved dealers. Parts may be ordered as needed to support scheduled repairs.

<u>Part Number</u>	<u>Description</u>
68243268AB	Converter, SCR Catalyst (WK 4WD only)
68243267AB	Converter, SCR Catalyst (WK 2WD only)
68263789AB	Converter, SCR Catalyst (DS vehicles with 140 inch wheelbase)
68263790AB	Converter, SCR Catalyst (DS vehicles with 149 inch wheelbase)
68160679AB	Gasket, SCR Catalyst
68234976AA	Gasket, Diesel Exhaust Fluid (DEF) Injector
06105052AA	Bolt, SCR Catalyst Fastener (Qty. 3)
06506619AA	Nut, SCR Catalyst Fastener (Qty. 3)

**Parts Return**

No parts return required for this campaign.

**Special Tools**

The following special tools are required to perform this repair:

- NPN wiTECH VCI Pod Kit
- NPN Laptop Computer
- NPN wiTECH Software

**Service Procedure****A. Replace The Selective Catalytic Reduction (SCR) catalyst**

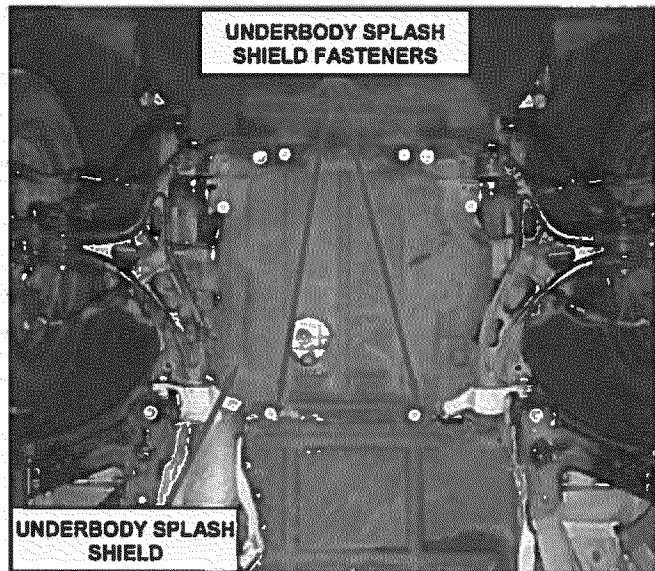
**WARNING:** If torches are used when servicing the exhaust system, do not allow any flame near the fuel lines or the fuel tank. Failure to follow these instructions may result in possible serious or fatal injury.

1. Disconnect and isolate the negative battery cable.
  2. Raise and support the vehicle using a suitable lift.
- For (WK) Jeep Grand Cherokee, continue with **Section B. (WK) Jeep Grand Cherokee.**
  - For (DS) RAM 1500 Pickup, continue with **Section C. (DS) RAM 1500 Pickup.**

**Service Procedure (Continued)****B. (WK) Jeep Grand Cherokee**

1. If equipped with an underbody splash shield, remove and save the fasteners and the shield (Figure 1).

**NOTE:** If equipped with a skid plate, removal process is similar.

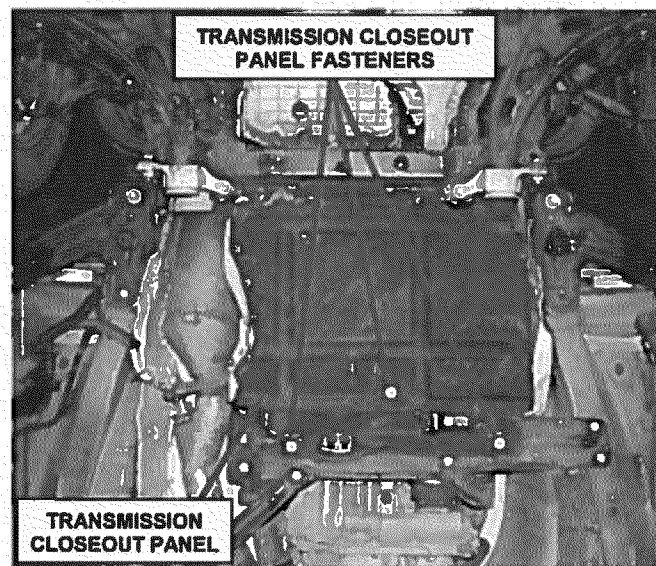


**Figure 1 – Engine Closeout Panel**

2. If equipped with a transmission closeout panel, remove and save the fasteners and the panel (Figure 2).

**NOTE:** If equipped with a skid plate, removal process is similar.

3. If equipped with a transfer case skid plate, remove and save the fasteners and skid plate.

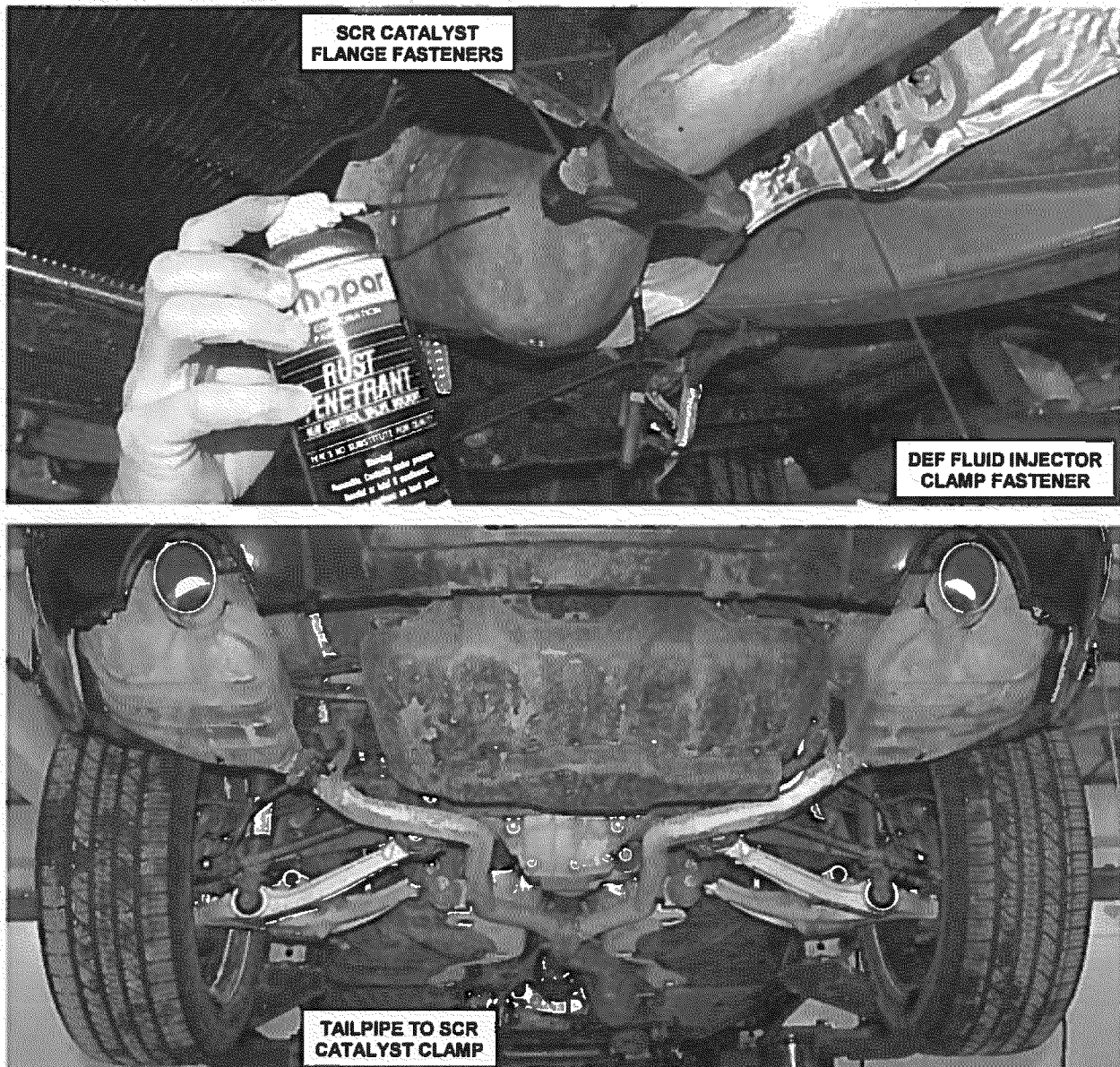


**Figure 2 – Transmission Closeout Panel**



**Service Procedure (Continued)**

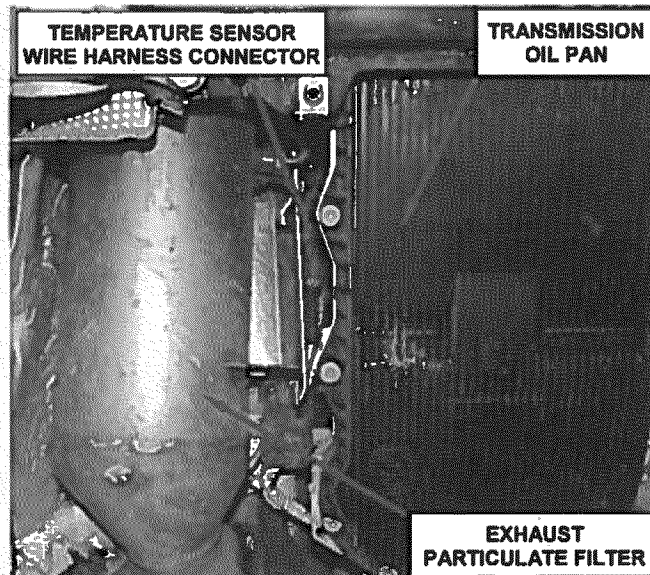
4. Saturate exhaust system fasteners with MOPAR rust penetrating lubricant or equivalent before proceeding to provide adequate time for lubricant penetration before exhaust component removal. Be sure to saturate the SCR catalyst flange fasteners, Diesel Exhaust Fluid (DEF) injector clamp fastener, and tailpipe to SCR catalyst clamp (Figure 3).



**Figure 3 – Saturate Exhaust Fasteners with Penetrating Lubricant**

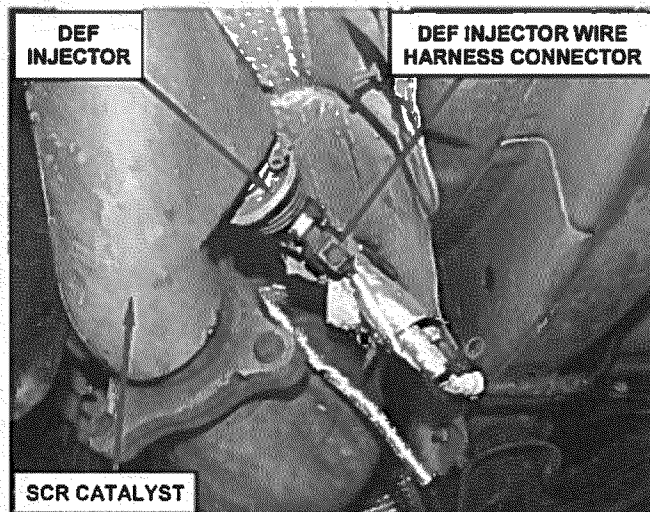
**Service Procedure (Continued)**

5. Disconnect the green SCR exhaust temperature sensor wire harness connector located between the exhaust particulate filter and the transmission (Figure 4).



**Figure 4 – Exhaust Temperature Sensor**

6. Disconnect the Diesel Exhaust Fluid (DEF) injector wire harness connector (Figure 5).

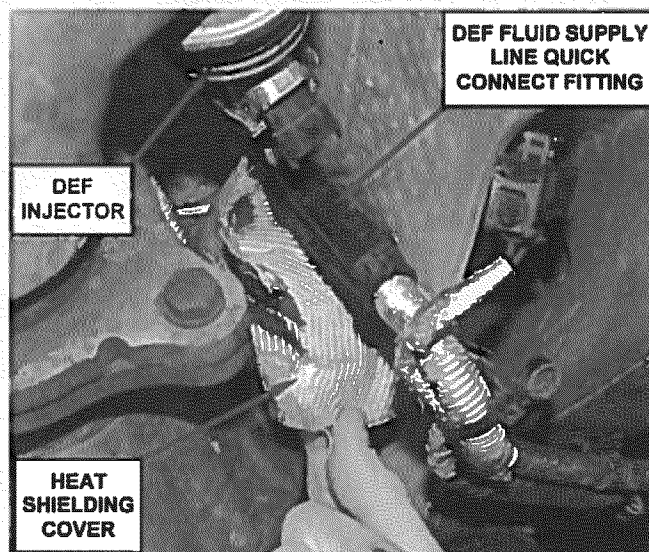
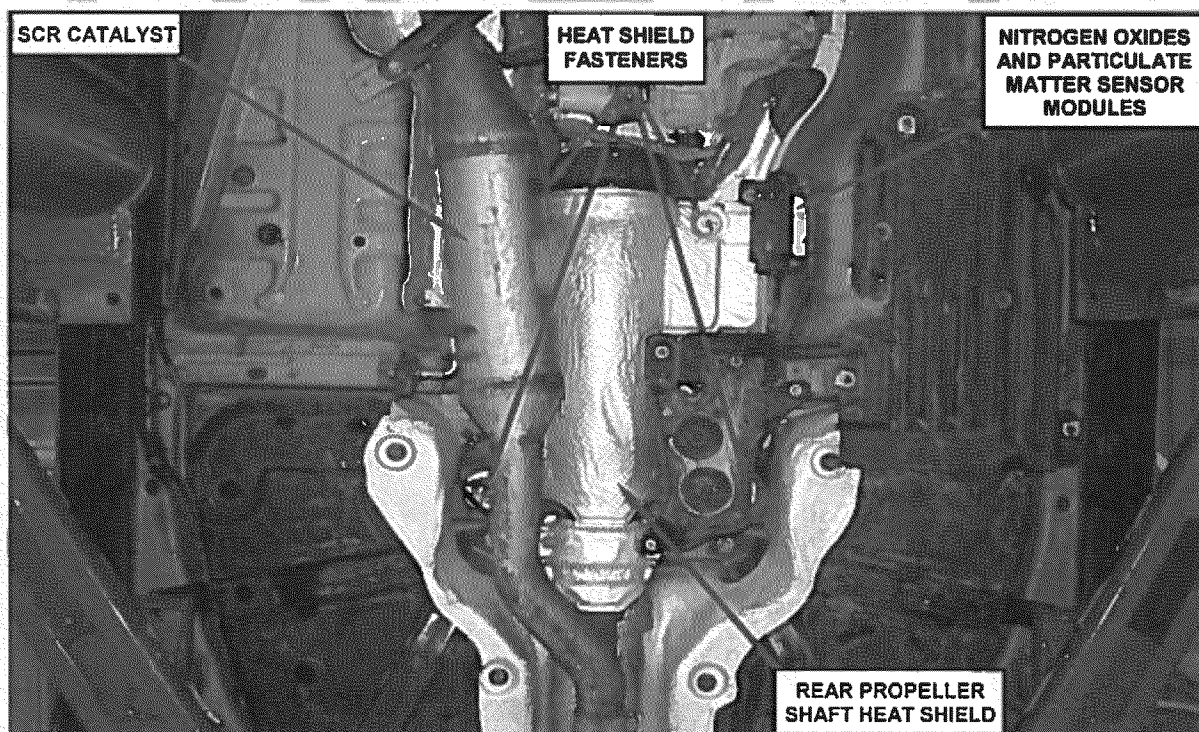


**Figure 5 – DEF Injector Harness**



**Service Procedure (Continued)**

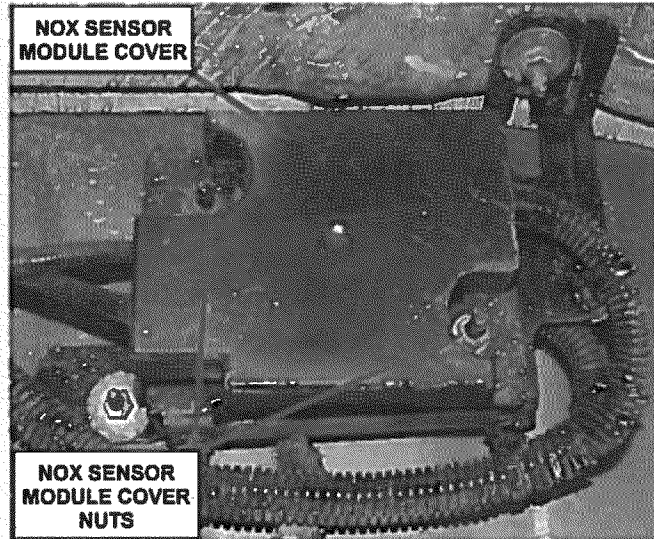
7. Remove and save the heat shielding cover from the DEF fluid supply line fitting (Figure 6).
8. Disconnect the DEF fluid supply line quick connect fitting from the DEF injector (Figure 6).
9. Remove and save the four fasteners from the rear propeller shaft heat shield. Then remove and save the heat shield (Figure 7).

**Figure 6 – DEF Injector Fitting****Figure 7 – Rear Propeller Shaft Heat Shield**

**Service Procedure (Continued)**

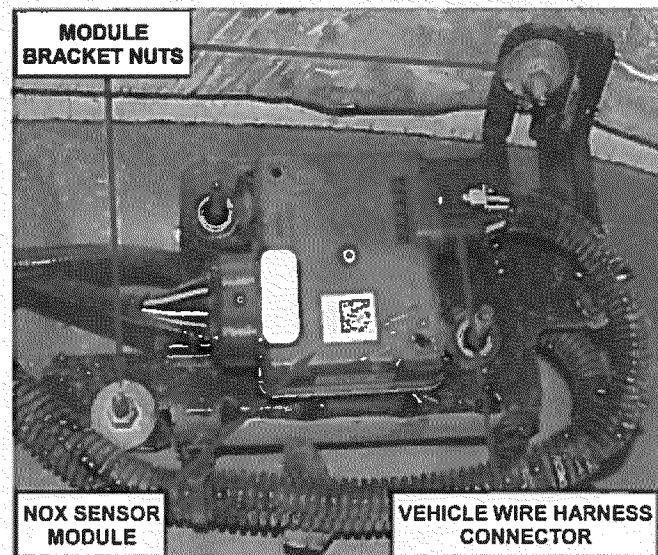
10. Remove and save the two nuts from the Oxides of Nitrogen (NOx) sensor module cover. Then remove and save the cover (Figure 8).

**NOTE: DO NOT disconnect the NOx sensor wire harness connector from the NOx sensor module. ONLY disconnect the vehicle wire harness from the NOx sensor module (Figure 9).**



**Figure 8 – NOx Sensor Module Cover**

11. Disconnect the vehicle wire harness connector from the NOx sensor module. Then remove the module from the module bracket (Figure 9).
12. Remove and save the two nuts from the module bracket. Then remove the bracket from the vehicle frame (Figure 9).



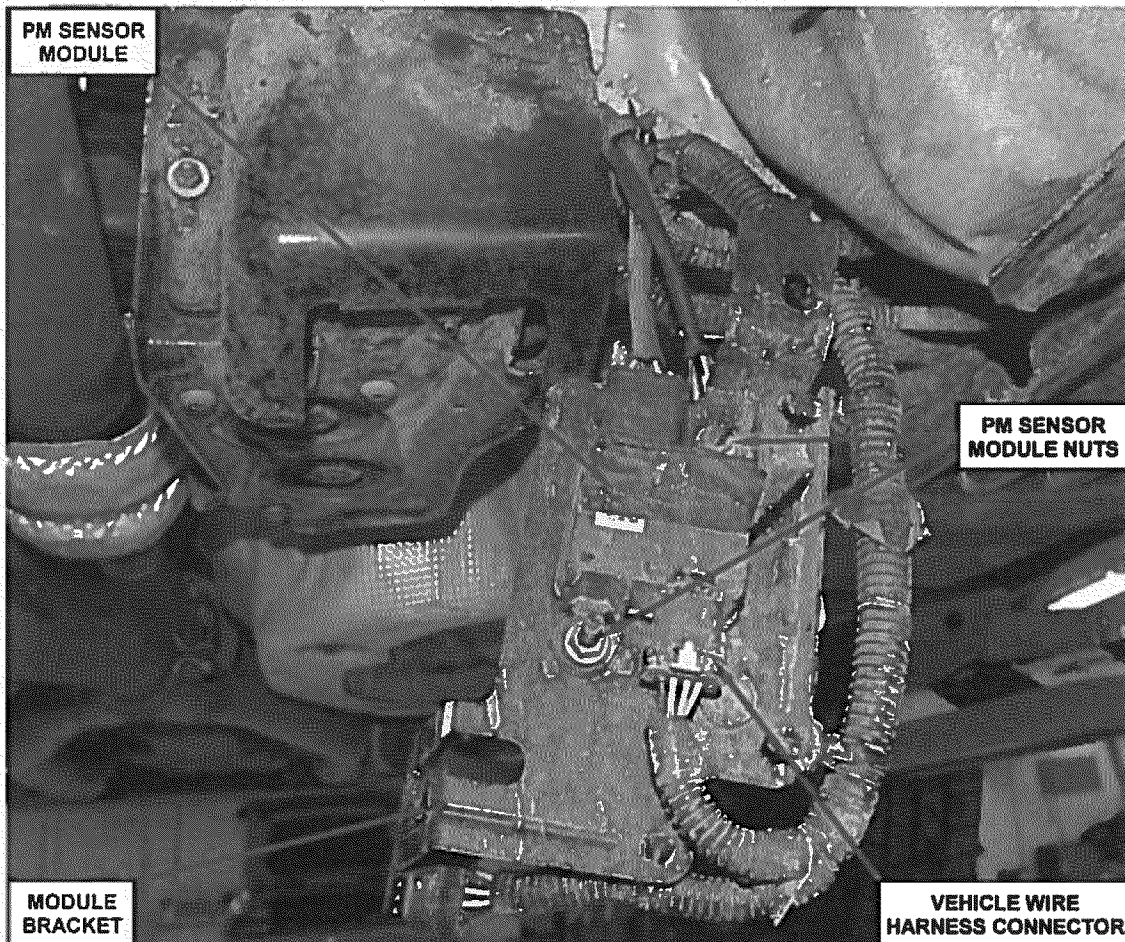
**Figure 9 – NOx Sensor Module**

**Service Procedure (Continued)**

13. Disconnect the vehicle wire harness connector from the Particulate Matter (PM) sensor (Figure 10).

**NOTE: DO NOT disconnect the PM sensor wire harness connector from the PM sensor module. ONLY disconnect the vehicle wire harness from the PM sensor module (Figure 10).**

14. Remove and save the two nuts from the PM sensor module. Then remove the PM sensor module from the module bracket (Figure 10).

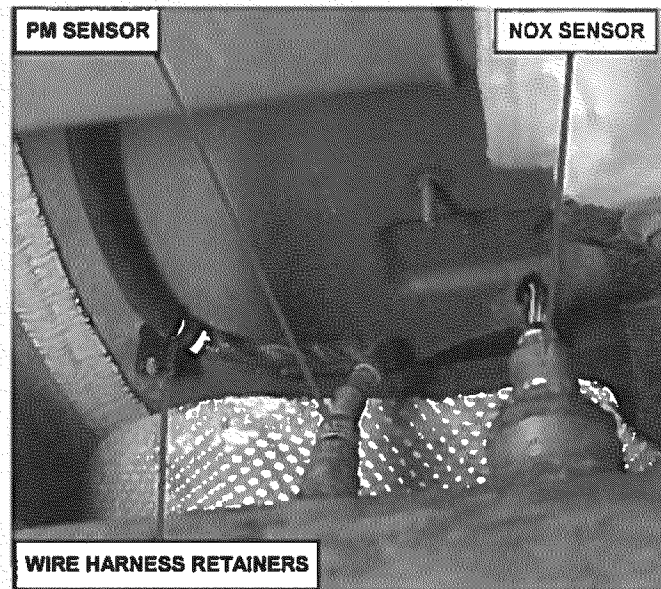


**Figure 10 – PM Sensor Module**



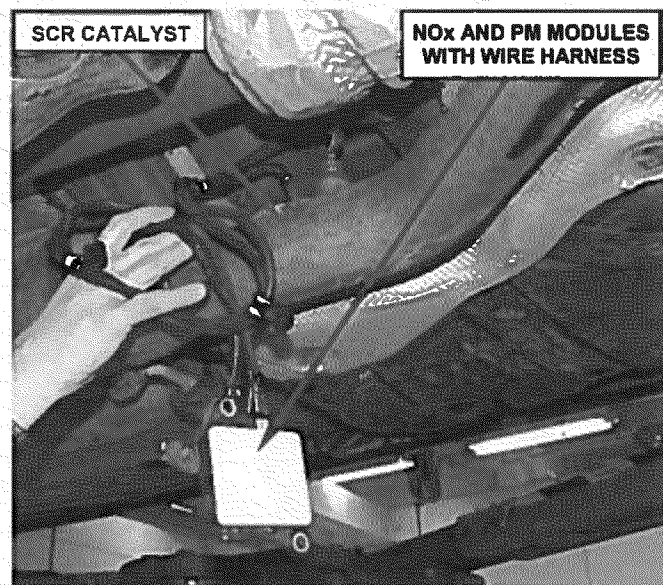
**Service Procedure (Continued)**

15. Release the three wire harness retainers that secure the PM sensor and NOx sensor wire harness to the vehicle body (Figure 11).



**Figure 11 – Wire Harness Retainers**

16. Route the PM sensor and NOx sensor modules over to the SCR catalyst and secure the wire harness and modules to the SCR catalyst for removal with SCR catalyst later in the procedure (Figure 12).



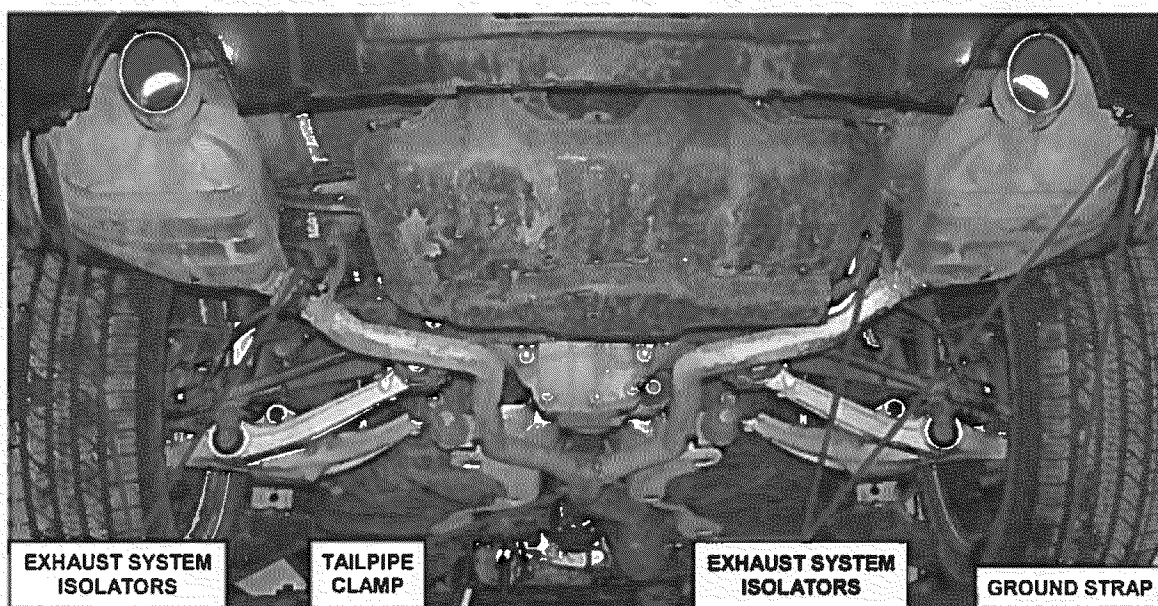
**Figure 12 – Wire Harness with Modules**

**Service Procedure (Continued)**

17. Loosen the tailpipe clamp (Figure 13).
18. Release the isolators and ground strap from the tailpipe and resonator assembly hanger rods (Figure 13).

**NOTE:** Assistance with exhaust system component removal is recommended.

19. Separate the tailpipe and resonator assembly from the SCR catalyst then remove and save the tailpipe and resonator assembly (Figure 13).



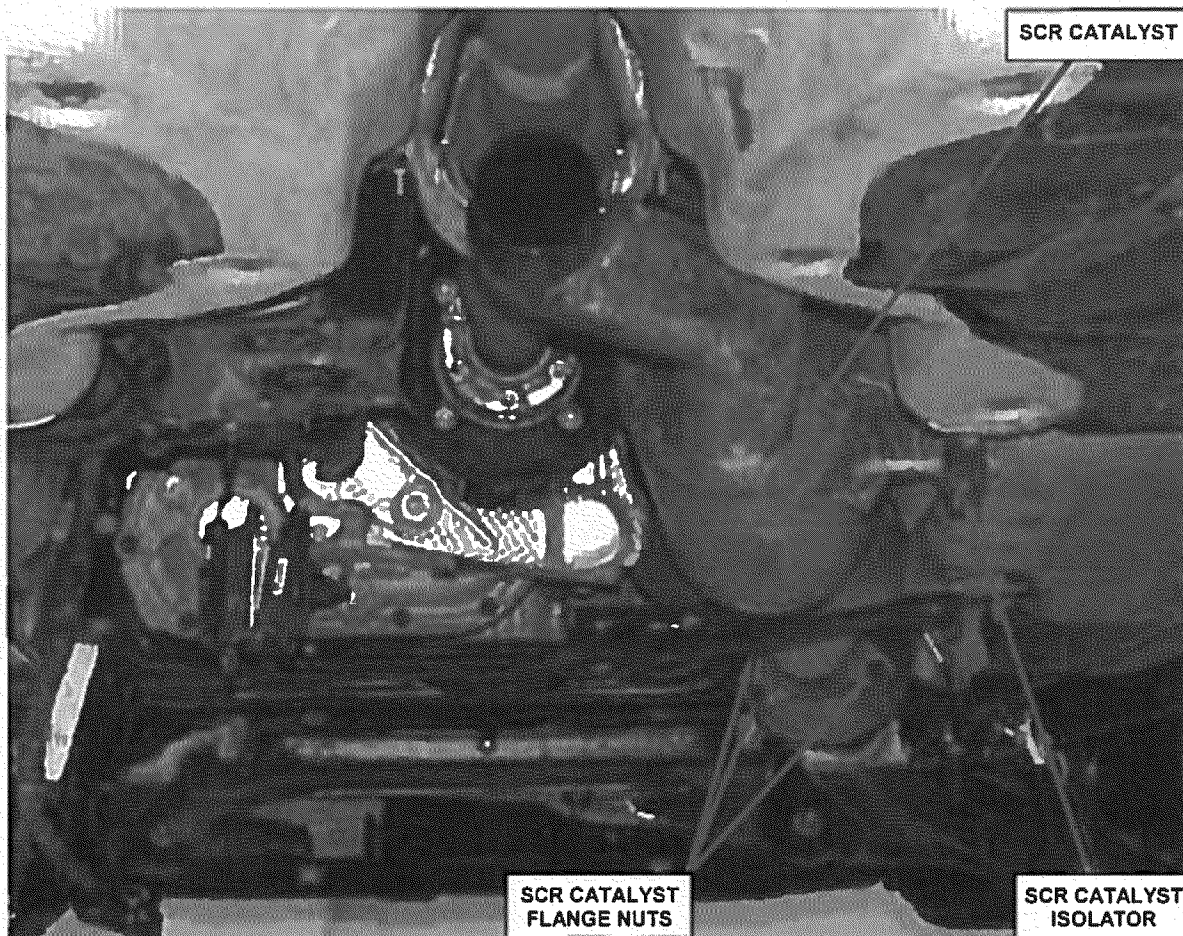
**Figure 13 – Tailpipe and Resonator Assembly**

**Service Procedure (Continued)**

20. Remove and save the three SCR catalyst flange nuts (Figure 14).

**NOTE:** If any of the three particulate filter studs break that secure the SCR catalyst, all three studs must be replaced with the bolts and nuts provided in the parts section of this recall.

21. Release the isolator from the SCR catalyst hanger rod (Figure 14).
22. Remove the SCR catalyst from the vehicle and place on a suitable bench for sensor transfer (Figure 15).



**Figure 14 – SCR Catalyst Assembly**

**Service Procedure (Continued)**

23. Use the following procedure to transfer the Particulate Matter (PM) sensor with module from the original SCR catalyst to the NEW SCR catalyst (Figure 15).

**NOTE: DO NOT use a torch as a heat source.**

- a. Use a six sided crowfoot wrench to remove the PM sensor from the SCR catalyst
- b. If the PM sensor fails to loosen, use a torque wrench set to 118 ft. lbs. (160 N·m) and loosen the PM sensor.
- c. If the PM sensor is still not loose after applying 118 ft. lbs. (160 N·m), then use a heat gun to heat the PM sensor boss for 1 minute at 842° F (450° C).
- d. Install the PM sensor into the NEW SCR catalyst and tighten to 44 ft. lbs. (60 N·m).

24. Use the following procedure to transfer the NOx sensor with module from the original SCR catalyst to the NEW SCR catalyst (Figure 15).

**NOTE: DO NOT use a torch as a heat source.**

- a. Use a six sided crowfoot wrench to remove the NOx sensor from the SCR catalyst
- b. If the NOx sensor fails to loosen, use a torque wrench set to 118 ft. lbs. (160 N·m) and loosen the PM sensor.
- c. If the NOx sensor is still not loose after applying 118 ft. lbs. (160 N·m), then use a heat gun to heat the PM sensor boss for 1 minute at 842° F (450° C).
- d. Install the NOx sensor into the NEW SCR catalyst and tighten to 41 ft. lbs. (55 N·m).

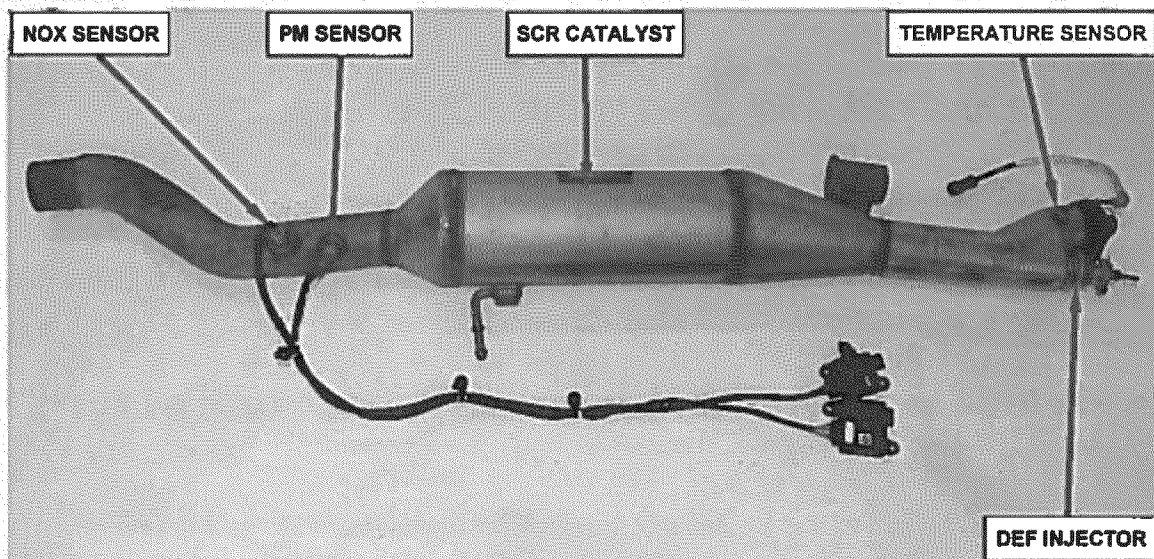


**Service Procedure (Continued)**

25. Use the following procedure to transfer the exhaust gas temperature sensor from the original SCR catalyst to the **NEW** SCR catalyst (Figure 15).

**CAUTION:** The exhaust gas temperature sensor requires care when removing, handling and installing. The exhaust gas temperature sensor is sensitive to knocks and bending. Do **NOT** drop the sensor. Failure to follow these instructions may result in damage to the exhaust gas temperature sensor.

- a. Use a six sided crowfoot wrench to remove the exhaust gas temperature sensor from the SCR catalyst.
- b. Install the exhaust gas temperature sensor into the **NEW** SCR catalyst and tighten to 35 ft. lbs. (47 N·m).



**Figure 15 – Selective Catalytic Reduction (SCR) Catalyst Assembly**



**Service Procedure (Continued)**

26. Use the following procedure to transfer the DEF injector from the original SCR catalyst to the NEW SCR catalyst (Figure 15).

- a. Loosen the DEF injector clamp and remove the DEF injector from the SCR catalyst (Figure 16).
- b. Inspect the opening of the DEF injector and make sure it is NOT plugged or restricted with buildup of DEF crystals. If the DEF injector opening is plugged or restricted, clean as necessary (Figure 17).

**NOTE:** Hot water may be used to dissolve DEF crystal buildup if the DEF injector requires cleaning.

- c. Remove and discard the DEF injector gasket then install a NEW DEF injector gasket (Figure 17).
- d. Install the DEF injector onto the SCR catalyst. Tighten the clamp to 44 in. lbs. (5 N·m) (Figure 16).

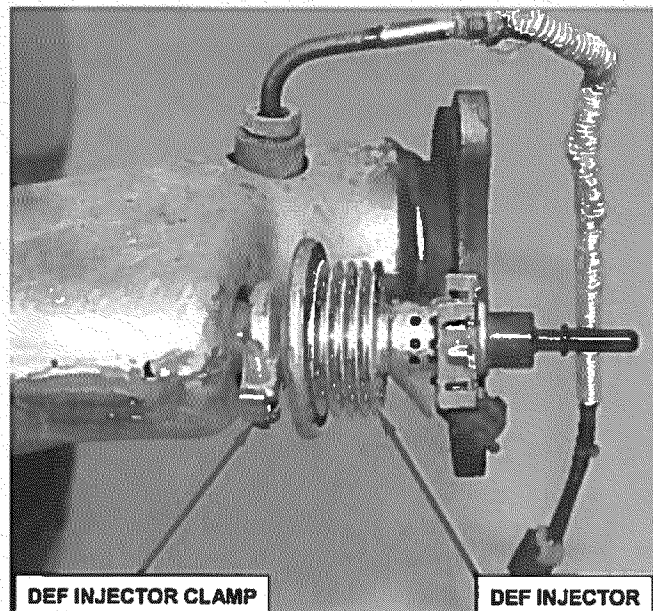


Figure 16 – DEF Injector

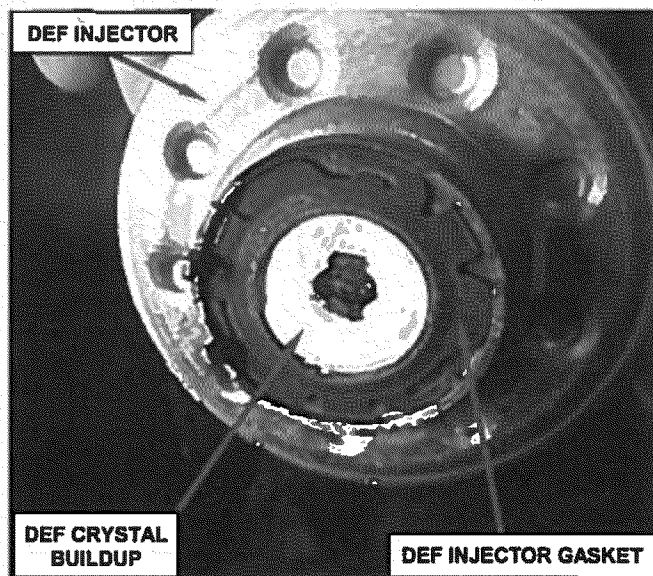
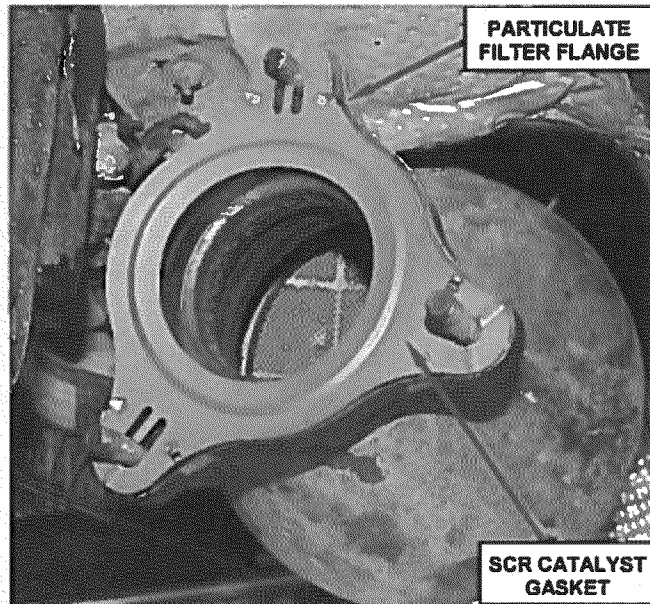


Figure 17 – DEF Injector Gasket

**Service Procedure (Continued)**

27. Remove and discard the used SCR catalyst gasket (Figure 18).
28. Clean the particulate filter flange gasket sealing surface (Figure 18).
29. Install a NEW SCR catalyst gasket (Figure 18).
30. Position the NEW SCR catalyst onto the particulate filter flange and install the three flange nuts finger tight (Figure 14).
31. Install the isolator onto the SCR catalyst hanger rod (Figure 14).
32. Tighten the SCR catalyst flange nuts to 24 ft. lbs. (32 N·m) (Figure 14).

**Figure 18 – SCR Catalyst Gasket**

- NOTE: Assistance with exhaust system component installation is recommended.**
33. Install the tailpipe and resonator assembly to the SCR catalyst (Figure 13).
  34. Install the isolators and ground strap onto the tailpipe and resonator assembly hanger rods (Figure 13).
  35. Check the exhaust system for proper alignment and for any contact with other vehicle components. A minimum of 1.0 in. (25 mm) is required between the exhaust system and other vehicle components. Make adjustments, if needed to achieve proper exhaust system clearance and alignment.
  36. Align the tailpipe clamp and tighten to 46 ft. lbs. (62 N·m) (Figure 13).

**Service Procedure (Continued)**

37. Route the PM sensor module and NOx sensor module over to the module mounting bracket and secure the wire harness with the three wire harness retainers (Figure 11).
38. Install the PM sensor module to the module mounting bracket and then install the two nuts that secure the module to the bracket. Tighten the nuts to 71 in. lbs. (8 N·m) (Figure 10).
39. Connect the vehicle wire harness connector to the PM sensor (Figure 10).
40. Install the module mounting bracket to the vehicle frame and then install the two nuts that secure the bracket to the frame. Tighten the nuts to 8 ft. lbs. (11 N·m) (Figure 9).
41. Install the NOx module to the module mounting bracket (Figure 9).
42. Connect the vehicle wire harness connector to the NOx module (Figure 9).
43. Install the NOx module cover and then install the two nuts that secure the cover. Tighten the nuts to 71 in. lbs. (8 N·m) (Figure 8).
44. Install the rear propshaft heat shield and then install the four fasteners that secure the heat shield to the vehicle underbody (Figure 7).
45. Connect the DEF supply line to the DEF injector (Figure 6).
46. Install the heat shielding cover over the DEF supply line fitting (Figure 6).

**Service Procedure (Continued)**

47. Connect the wire harness connector to the DEF injector (Figure 5).
48. Connect the green exhaust temperature sensor wire harness connector located between the exhaust particulate filter and the transmission (Figure 4).
49. If equipped with a transfer case skid plate, install the skid plate and fasteners.
50. If equipped with a transmission closeout panel, install the panel and fasteners (Figure 2).

**NOTE: If equipped with a transmission skid plate, installation process is similar.**

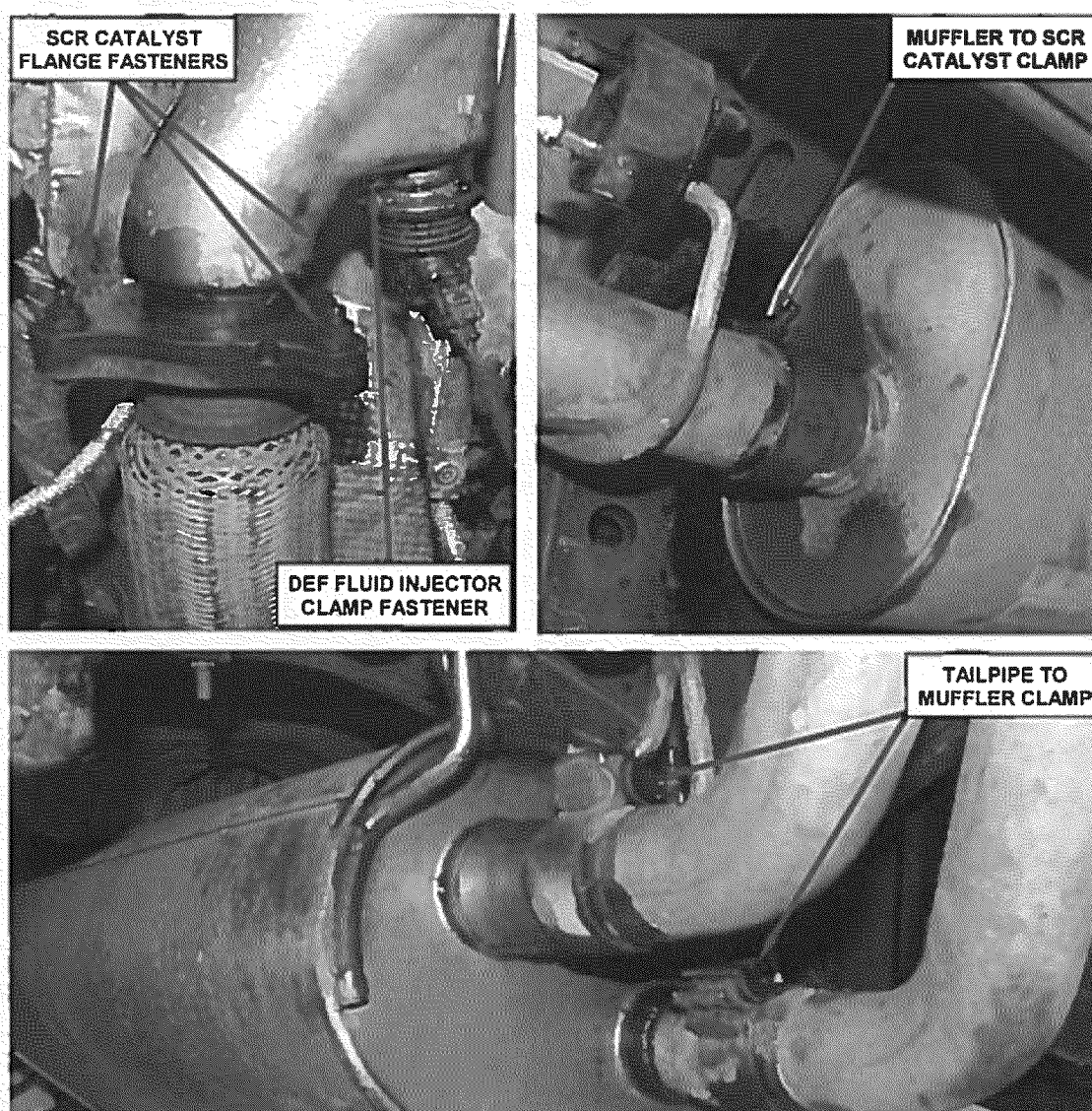
51. If equipped with an underbody splash shield, install the panel and fasteners (Figure 1).

**NOTE: If equipped with a underbody skid plate, installation process is similar.**

52. Remove support and lower the vehicle.
53. Connect the negative battery cable to the negative battery post.
54. Use the following procedure to perform the SCR catalyst reset:
  - a. Connect the wiTECH scan tool and start a session.
  - b. From the “PCM View” screen, click on the “Miscellaneous Functions” tab.
  - c. Perform the SCR System Catalyst Reset function.
  - d. Using the wiTECH scan tool, clear all Diagnostic Trouble Codes (DTCs).
55. Remove the wiTECH scan tool from the vehicle.
56. Return the vehicle to the customer.

**Service Procedure (Continued)****C. (DS) RAM 1500 Pickup**

1. Saturate exhaust system fasteners with MOPAR rust penetrating lubricant or equivalent before proceeding to provide adequate time for lubricant penetration before exhaust component removal. Be sure to saturate the SCR catalyst flange fasteners, Diesel Exhaust Fluid (DEF) injector clamp fastener, muffler to SCR catalyst clamp, and tailpipe(s) to muffler clamp(s) (Figure 19).

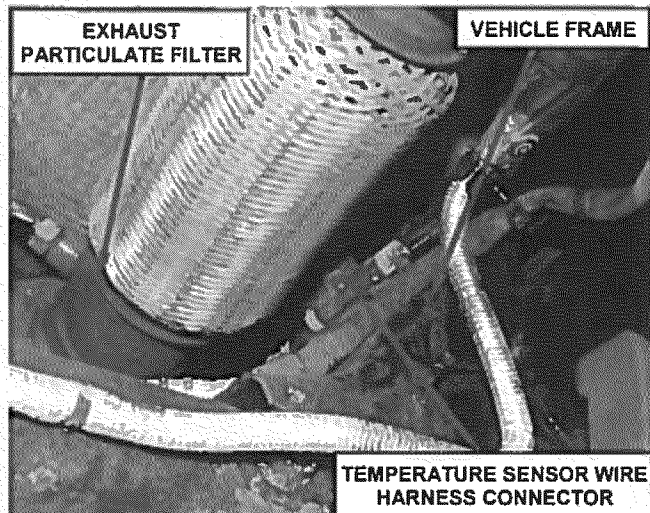


**Figure 19 – Saturate Exhaust Fasteners with Penetrating Lubricant**



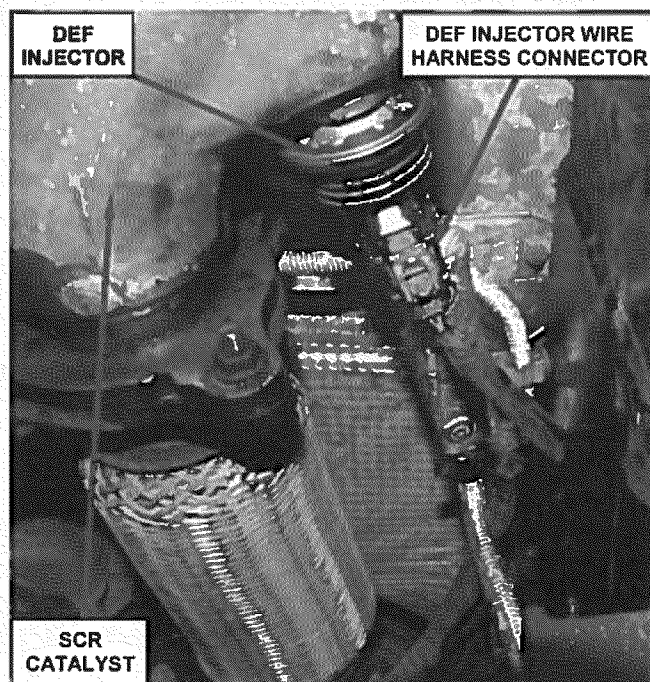
**Service Procedure (Continued)**

2. Disconnect the green exhaust temperature sensor wire harness connector located between the exhaust particulate filter and the vehicle frame (Figure 20).



**Figure 20 – Exhaust Temperature Sensor**

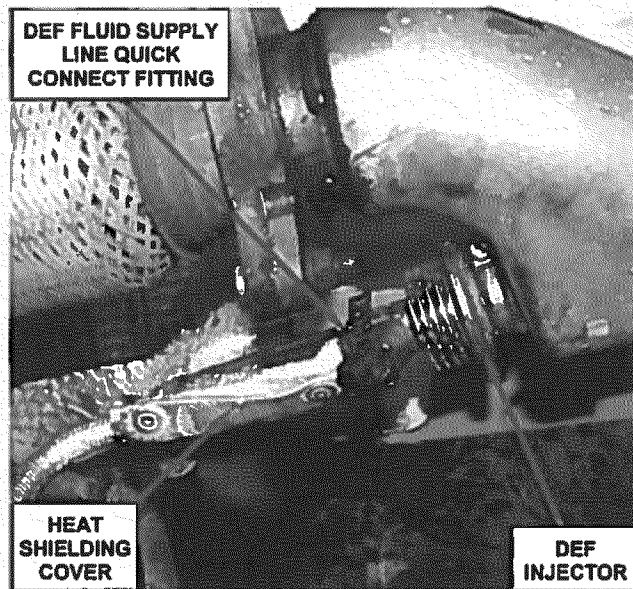
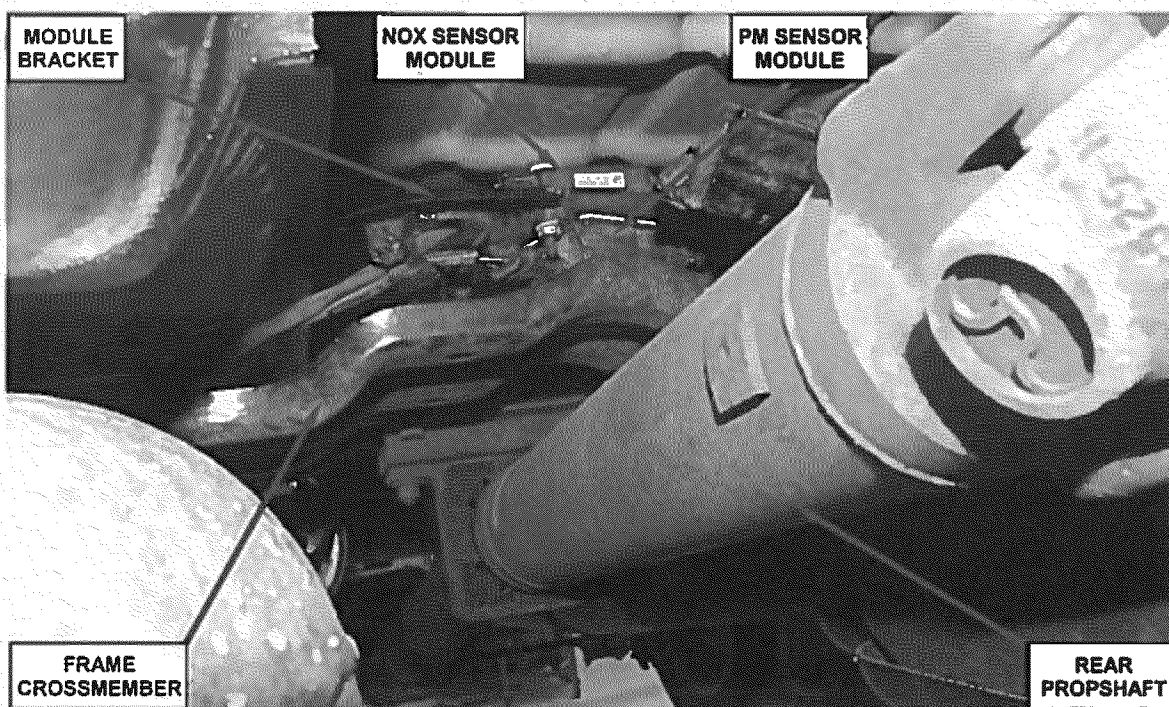
3. Disconnect the Diesel Exhaust Fluid (DEF) injector wire harness connector from the DEF injector (Figure 21).



**Figure 21 – DEF Injector Harness**

**Service Procedure (Continued)**

4. Slide the heat shielding cover back and disconnect the DEF fluid supply line quick connect fitting from the DEF injector (Figure 22).
5. Remove and save the three nuts from the Oxides of Nitrogen (NOx) and Particulate Matter (PM) sensor module mounting bracket. Then remove the bracket from the crossmember (Figure 23).

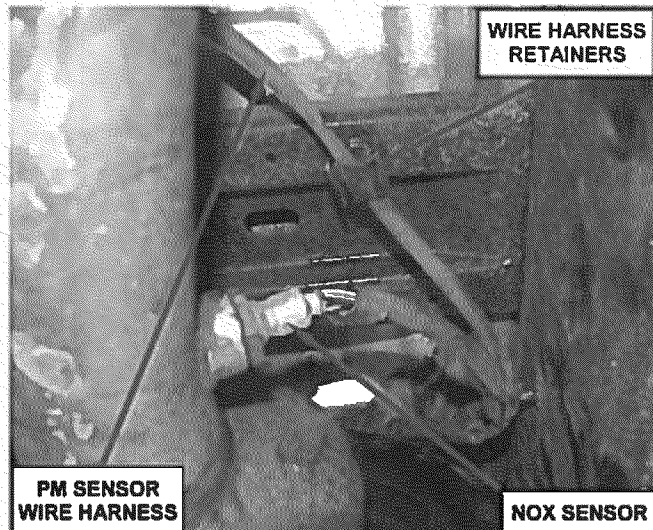
**Figure 22 – DEF Injector Fitting****Figure 23 – PM and NOx Sensor Module Bracket on Crossmember**

**Service Procedure (Continued)**

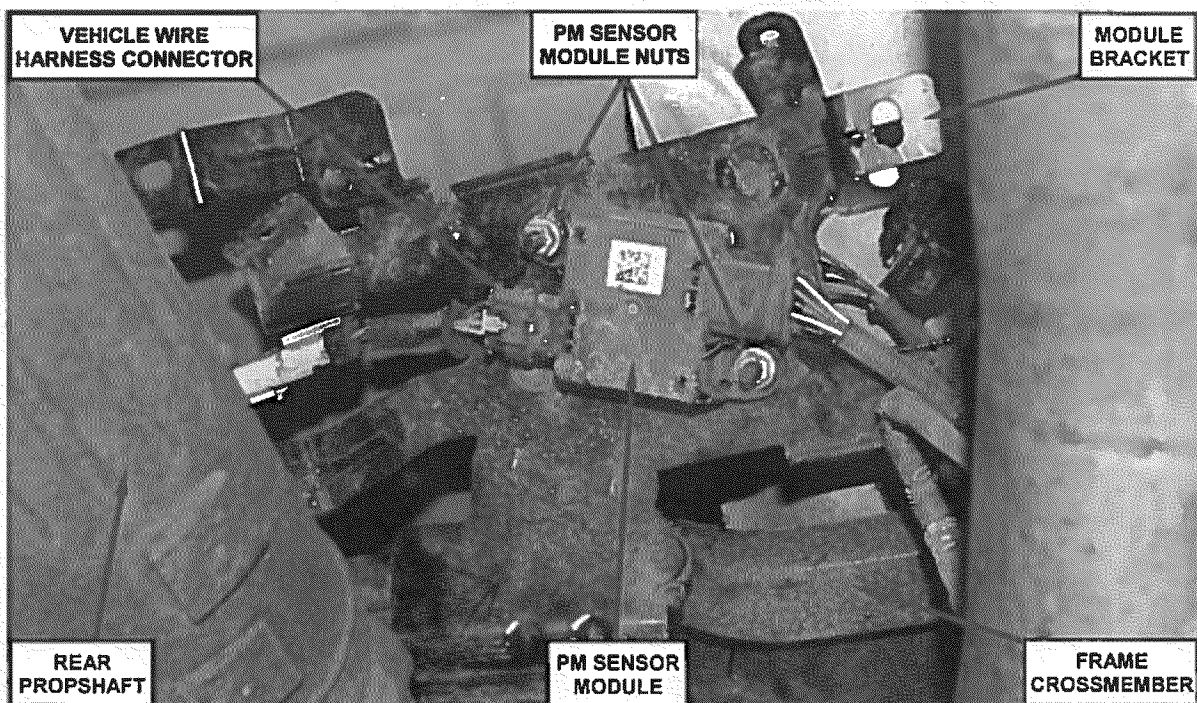
6. Release the four NOx sensor and PM sensor wire harness retainers (Figure 24).

**NOTE: DO NOT disconnect the PM sensor wire harness connector from the PM sensor module. ONLY disconnect the vehicle wire harness from the PM sensor module (Figure 25).**

7. Disconnect the vehicle wire harness connector from the PM sensor module (Figure 25).
8. Remove and save the two nuts from the PM sensor module. Then remove the PM sensor module from the module mounting bracket (Figure 25).



**Figure 24 – Wire Harness Retainers**



**Figure 25 – PM Sensor Module**

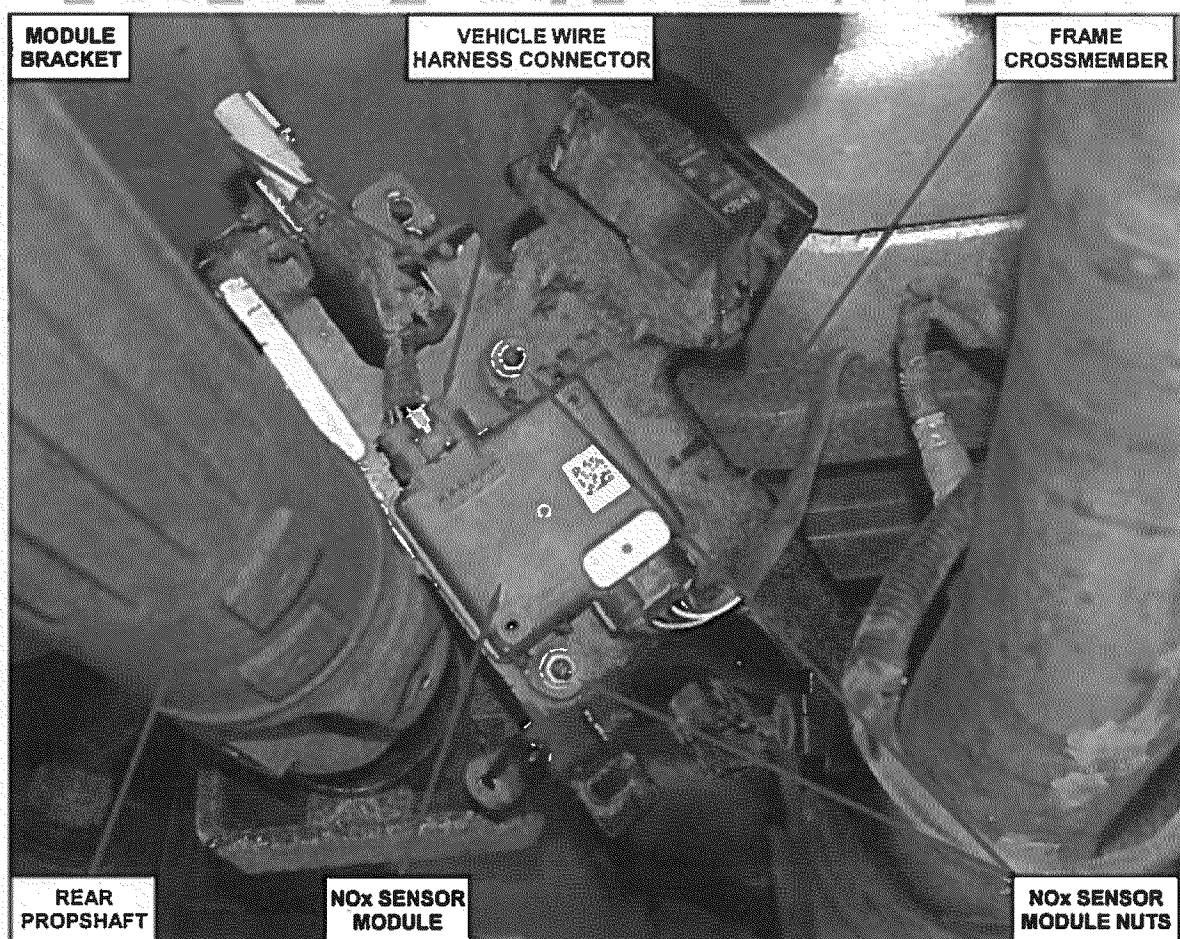


**Service Procedure (Continued)**

9. Disconnect the vehicle wire harness connector from the NOx sensor (Figure 26).

**NOTE: DO NOT disconnect the NOx sensor wire harness connector from the NOx sensor module. ONLY disconnect the vehicle wire harness from the NOx sensor module (Figure 26).**

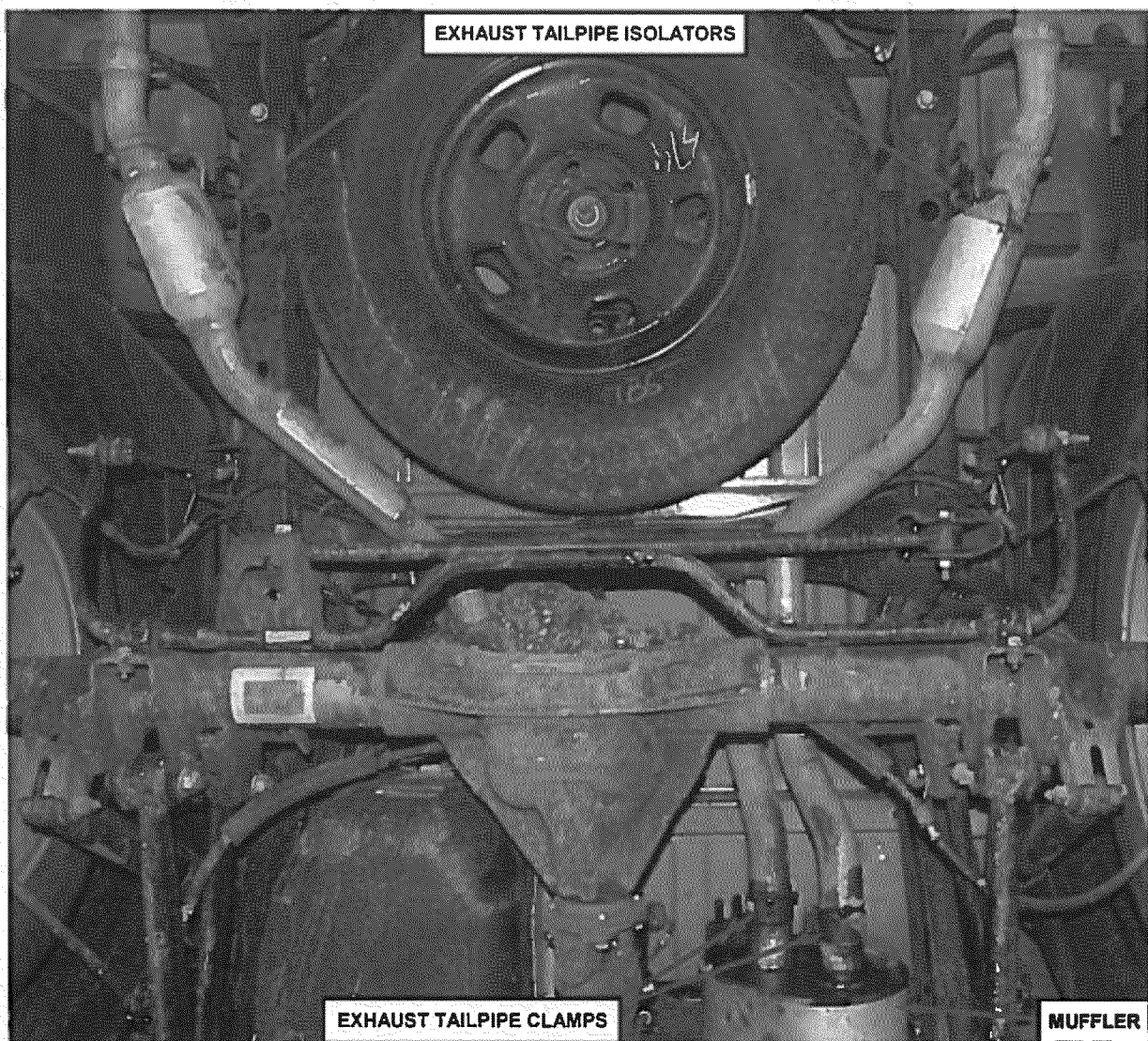
10. Remove and save the two nuts from the NOx sensor module. Then remove the NOx sensor module from the module mounting bracket (Figure 26).
11. Route the PM sensor and NOx sensor modules over to the SCR catalyst and secure the wire harness and modules to the SCR catalyst for removal with SCR catalyst later in the procedure.



**Figure 26 – NOx Sensor Module**

**Service Procedure (Continued)**

12. Loosen the exhaust tailpipe clamp(s) (Figure 27).
13. Release the isolator(s) from the exhaust tailpipe(s) hanger rod (Figure 27).
14. Separate the exhaust tailpipe(s) from the muffler. Then remove and save the tailpipe(s) (Figure 27).



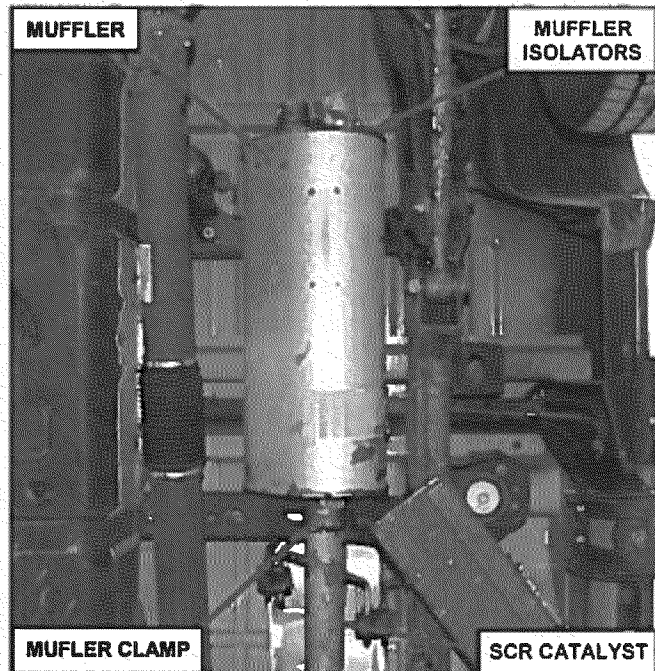
**Figure 27 – Tailpipes (Dual Exhaust Shown Single Exhaust Similar)**

**Service Procedure (Continued)**

15. Loosen the muffler exhaust clamp nuts (Figure 28).

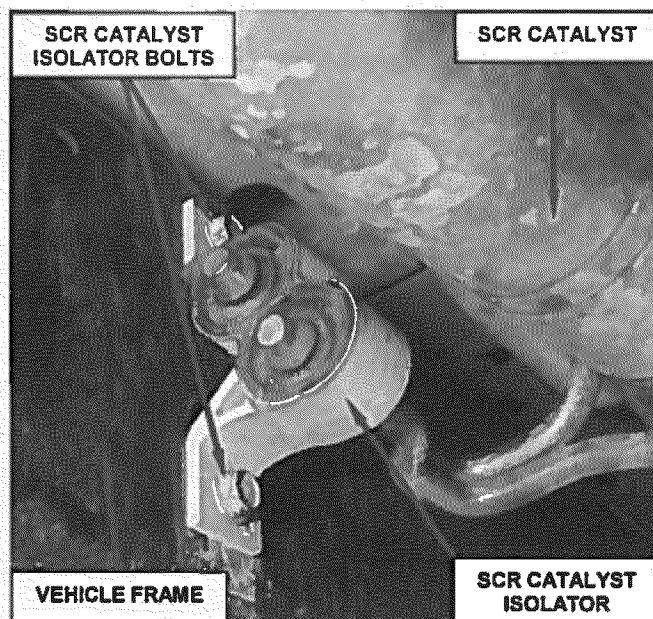
16. Release the isolators from the muffler hanger rods (Figure 28).

17. Separate the muffler from the SCR catalyst. Then remove and save the muffler (Figure 28).



**Figure 28 – Muffler**

18. Remove and save the two bolts securing the SCR catalyst isolator to the vehicle frame (Figure 29).



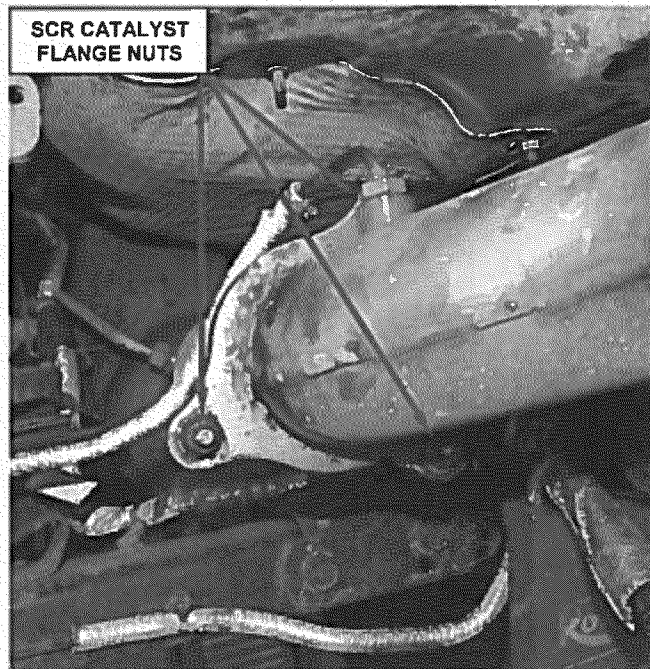
**Figure 29 – SCR Catalyst Isolator**



**Service Procedure (Continued)**

19. Remove and save the three SCR catalyst flange nuts (Figure 30).

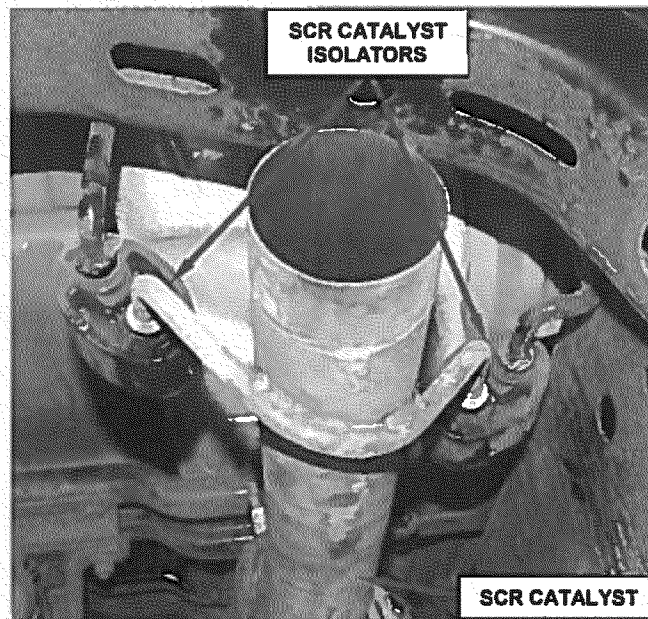
**NOTE:** If any of the three particulate filter studs break that secure the SCR catalyst, all three studs must be replaced with the bolts and nuts provided in the parts section of this recall.



**Figure 30 – SCR Catalyst Flange**

20. Release the isolator from the SCR catalyst hanger rod (Figure 31).

21. Remove the SCR catalyst from the vehicle and place on a suitable bench for transfer of sensors and components (Figure 32).



**Figure 31 – SCR Catalyst Isolators**

**Service Procedure (Continued)**

22. Use the following procedure to transfer the Particulate Matter (PM) sensor with module from the original SCR catalyst to the NEW SCR catalyst (Figure 32).

**NOTE: DO NOT use a torch as a heat source.**

- a. Use a six sided crowfoot wrench to remove the PM sensor from the SCR catalyst
  - b. If the PM sensor fails to loosen, use a torque wrench set to 118 ft. lbs. (160 N·m) and loosen the PM sensor.
  - c. If the PM sensor is still not loose after applying 118 ft. lbs. (160 N·m), then use a heat gun to heat the PM sensor boss for 1 minute at 842° F (450° C).
  - d. Install the PM sensor into the NEW SCR catalyst and tighten to 44 ft. lbs. (60 N·m.).
23. Use the following procedure to transfer the NOx sensor with module from the original SCR catalyst to the NEW SCR catalyst (Figure 32).

**NOTE: DO NOT use a torch as a heat source.**

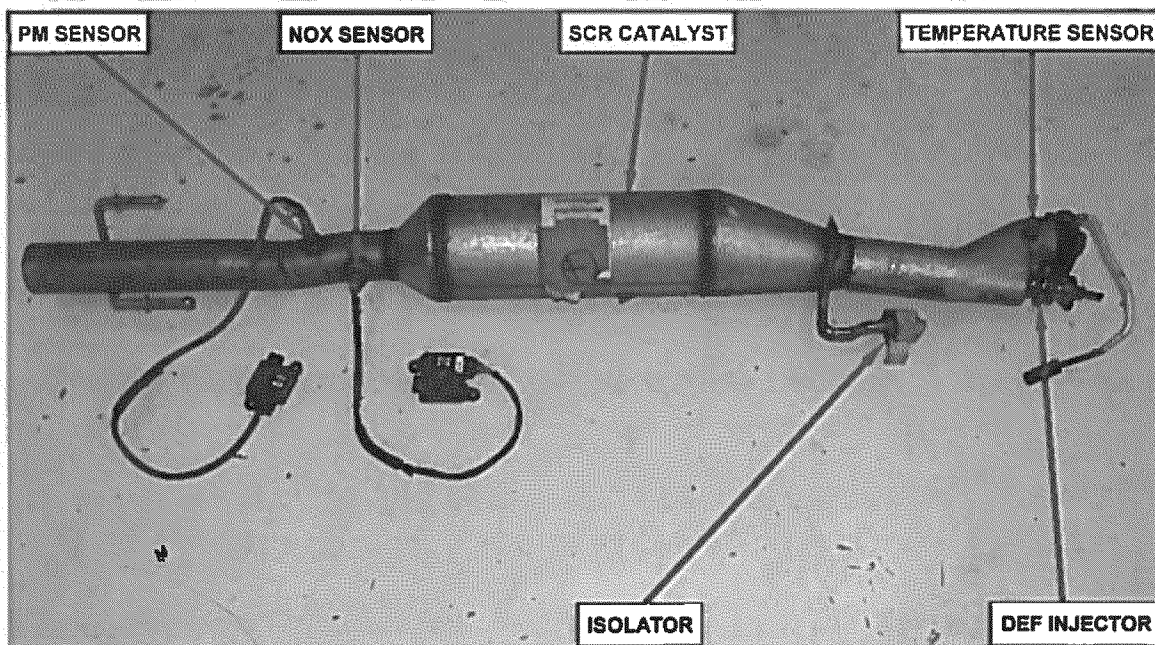
- a. Use a six sided crowfoot wrench to remove the NOx sensor from the SCR catalyst
- b. If the NOx sensor fails to loosen, use a torque wrench set to 118 ft. lbs. (160 N·m) and loosen the PM sensor.
- c. If the NOx sensor is still not loose after applying 118 ft. lbs. (160 N·m), then use a heat gun to heat the PM sensor boss for 1 minute at 842° F (450° C).
- d. Install the NOx sensor into the NEW SCR catalyst and tighten to 41 ft. lbs. (55 N·m).

**Service Procedure (Continued)**

24. Use the following procedure to transfer the exhaust gas temperature sensor from the original SCR catalyst to the **NEW** SCR catalyst (Figure 32).

**CAUTION:** The exhaust gas temperature sensor requires care when removing, handling and installing. The exhaust gas temperature sensor is sensitive to knocks and bending. Do NOT drop the sensor. Failure to follow these instructions may result in damage to the exhaust gas temperature sensor.

- a. Use a six sided crowfoot wrench to remove the exhaust gas temperature sensor from the SCR catalyst.
  - b. Install the exhaust gas temperature sensor into the **NEW** SCR catalyst and tighten to 35 ft. lbs. (47 N·m).
25. Transfer the isolator to the **NEW** SCR catalyst (Figure 32).



**Figure 32 – Selective Catalytic Reduction (SCR) Catalyst Assembly**

**Service Procedure (Continued)**

26. Use the following procedure to transfer the DEF injector from the original SCR catalyst to the **NEW** SCR catalyst (Figure 32).

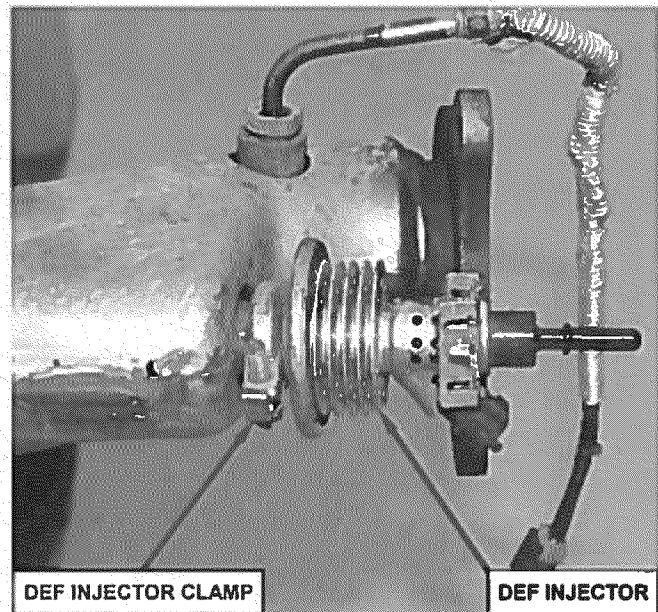
- a. Loosen the DEF injector clamp and remove the DEF injector from the SCR catalyst (Figure 33).

**NOTE:** Hot water may be used to dissolve DEF crystal buildup if the DEF injector requires cleaning.

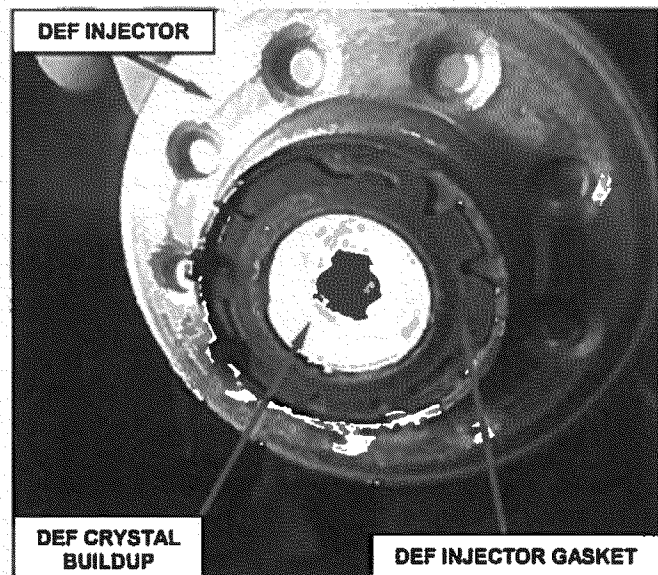
- b. Inspect the opening of the DEF injector and make sure it is **NOT** plugged or restricted with buildup of DEF crystals. If the DEF injector opening is plugged or restricted, clean as necessary (Figure 34).

- c. Remove and discard the DEF injector gasket then install a **NEW** DEF injector gasket (Figure 34).

- d. Install the DEF injector onto the SCR catalyst. Tighten the clamp to 44 in. lbs. (5 N·m) (Figure 33).



**Figure 33 – DEF Injector**



**Figure 34 – DEF Injector Gasket**



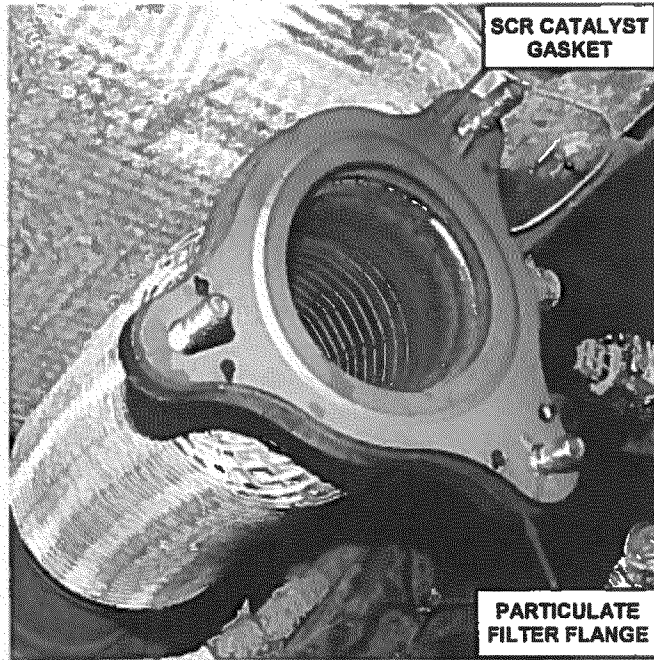
**Service Procedure (Continued)**

27. Remove and discard the used SCR catalyst gasket (Figure 35).

28. Clean the particulate filter flange gasket sealing surface (Figure 35).

29. Install a NEW SCR catalyst gasket (Figure 35).

30. Position the NEW SCR catalyst onto the particulate filter flange and install the three flange nuts finger tight (Figure 30).



**Figure 35 – SCR Catalyst Gasket**

31. Install the isolators onto the SCR catalyst hanger rods (Figure 31).

32. Install the two bolts securing the SCR catalyst isolator to the vehicle frame. Tighten the bolts to 21 ft. lbs. (28 N·m) (Figure 29).

33. Tighten the SCR catalyst flange nuts to 24 ft. lbs. (32 N·m) (Figure 30).

34. Install the muffler with clamps loosely to the SCR catalyst to permit proper alignment of all parts (Figure 28).

35. Install the isolators onto the muffler hanger rods (Figure 28).

36. Tighten the muffler clamp to 41 ft. lbs. (55 N·m) (Figure 28).

37. Install the tailpipe(s) loosely to the muffler to permit proper alignment of all parts (Figure 27).

38. Install the isolator(s) onto the tailpipe hanger rod(s) (Figure 27).



**Service Procedure (Continued)**

39. Check the exhaust system for proper alignment and for any contact with other vehicle components. A minimum of 1.0 in. (25 mm) is required between the exhaust system and other vehicle components. Make adjustments, if needed to achieve proper exhaust system clearance and alignment.
40. Align the tailpipe clamp and tighten to 41 ft. lbs. (55 N·m) (Figure 27).
41. Route the PM sensor module and NOx sensor module over to the module mounting bracket.
42. Install the NOx module to the top side of the module mounting bracket and then install the two nuts that secure the module to the bracket. Tighten the nuts to 80 in. lbs. (9 N·m) (Figure 26).
43. Connect the vehicle wire harness connector to the NOx module (Figure 26).
44. Install the PM module to the bottom side of the module mounting bracket and then install the two nuts that secure the module to the bracket. Tighten the nuts to 80 in. lbs. (9 N·m) (Figure 25).
45. Connect the vehicle wire harness connector to the PM module (Figure 25).
46. Install the module mounting bracket to the vehicle crossmember and then install the three nuts that secure the bracket to the crossmember. Tighten the nuts to 8 ft. lbs. (11 N·m) (Figure 23).
47. Secure the four NOx sensor and PM sensor wire harness retainers (Figure 24).
48. Connect the DEF fluid supply line quick connect fitting to the DEF injector (Figure 22).
49. Connect the DEF injector wire harness connector to the DEF injector (Figure 21).
50. Connect the green exhaust temperature sensor wire harness connector located between the exhaust particulate filter and the transmission (Figure 20).

**Service Procedure (Continued)**

51. Remove support and lower the vehicle.
52. Connect the negative battery cable to the negative battery post.
53. Use the following procedure to perform the SCR catalyst reset:
  - a. Connect the wiTECH scan tool and start a session.
  - b. From the “PCM View” screen, click on the “Miscellaneous Functions” tab.
  - c. Perform the **SCR System Catalyst Reset** function.
  - d. Using the wiTECH scan tool, clear all Diagnostic Trouble Codes (DTCs).
54. Remove the wiTECH scan tool from the vehicle.
55. Return the vehicle to the customer.

**D. Complete Proof of Correction Form for California Residents:**

This recall is subject to the State of California Registration Renewal/Emissions Recall Enforcement Program. Complete a Vehicle Emission Recall Proof of Correction Form (Form No. 81-016-1053) and supply it to vehicle owners residing in the state of California for proof that this recall has been performed when they renew the vehicle registration.

**Completion Reporting and Reimbursement**

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by FCA US LLC to record recall service completions and provide dealer payments.

Use the following labor operation numbers and time allowances:

	<b><u>Labor Operation Number</u></b>	<b><u>Time Allowance</u></b>
Replace SCR (WK - Grand Cherokee)	25-R6-91-82	1.2 hours
Replace SCR (DS - 1500 Pickup)	25-R6-91-83	1.4 hours
<b><u>Related Operation</u></b>		
Replace 3 SCR catalyst-flange studs	25-R6-91-51	0.2 hours
<b><u>Optional Equipment</u></b>		
Transfer Case Skid Plate (WK - Grand Cherokee)	25-R6-91-61	0.2 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

**Dealer Notification**

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

**Owner Notification and Service Scheduling**

All involved vehicle owners known to FCA US LLC are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

**Vehicle Lists, Global Recall System, VIP and Dealer Follow Up**

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the "Service" tab and then click on "Global Recall System." Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

**Dealers must perform this repair on all unsold vehicles before retail delivery.** Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

*Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.*

**Additional Information**

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations  
FCA US LLC